



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/720,669 | 11/25/2003 | Uma Kant Singh | 34874-281 | 6260 |
| 64280 | 7590 | 11/23/2010 | EXAMINER | |
| MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO, P.C. ONE FINANCIAL CENTER BOSTON, MA 02111 | | | RECEK, JASON D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2442 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 11/23/2010 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/720,669 | SINGH ET AL. | |
| | Examiner | Art Unit | |
| | JASON RECEK | 2442 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 June 2010.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 20-28 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 20-28 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

This is in response to the phone call indicating the last action mailed 8/18/10 was incomplete. That action appeared to have the last page cutoff.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/16/10 has been entered.

Status of Claims

Claims 20-28 are pending, claims 25-28 are new.

Response to Arguments

2. Applicant's arguments, see pg. 8, with respect to the claim objection have been fully considered and are persuasive. The objection of claim 24 has been withdrawn.

3. Applicant's arguments filed 6/16/10 (pg. 8-10) with respect to the 103 rejection of claims 20-24 have been fully considered but they are not persuasive. Applicant asserts a similar line of reasoning that was presented in the after final response, mainly, that Multer does not teach messages. This is not persuasive for the same reasons given in the advisory action dated 5/12/10. The specification of the instant application teaches that a "message" identifies changes and exchanges information (paragraphs 9, 50). Multer '336 teaches identifying changes (i.e. difference information) as a change log (col. 12 ln. 9-10). And, as applicant acknowledges (pg. 10), Multer '336 teaches transmitting this information between systems for the purpose of synchronization (col. 6 ln. 28-32). Transmitting data that identifies changes is exactly the type of "message" that is envisioned by the claims. Thus, Multer '336 discloses "messages" as recited by the claims.

Applicant's suggestion that Multer is silent with respect to specific message types (i.e. generic or adapted) is also misplaced. Multer explicitly contemplates a universal format and specific application data (col. 17 ln. 31-63), also application data destination format (col. 3 ln. 27-28).

4. Applicant's arguments, see pg. 10, with respect to the rejection(s) of claim(s) 22-23 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dawson et al. US 6,230,198 B1.

5. Applicant's arguments (pg. 11-12) regarding claim 24 are noted. In response, the rejection of claim 24 has been expanded upon for clarification. Specifically, the seven modules comprising the synchronization module are discussed in detail. However, it is respectfully submitted the platforms and database correspond to the platforms and database of claim 20, and as such the discussion of these items in claim 20 is sufficient to provide applicant with a clear basis for understanding the rejection.

6. Applicant asserts new claim 28 is allowable (pg. 12). Claim 28 is rejected as set forth below.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 20-21 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Multer et al. US 6,694,336 B1 in view of Creswell et al. US 6,445,783 B1 and Multer US 7,415,486 B2 (hereinafter "Multer 486").

Regarding claim 20, Multer discloses "*A system for synchronizing data objects for a user between a primary platform and a plurality of auxiliary platforms comprising,*" as "*a system [...] for transferring data between two devices which require information to be shared between them,*" (col. 4, line 65) and states more specifically that the intention

is to synchronize information between multiple computing systems (col. 5, line 1-2, 26-28). Multer discloses "*a memory*" and "*processing means, coupled to the memory, to execute at least one computer program*" as components of a device to be synchronized (col. 5, line 6) where the system "comprises a set of programs specifically designed to transmit and/or receive differencing data from one device to another device" (col. 5, line 17). Multer discloses "*creating, by a primary platform synchronization framework, a set of generic messages identifying changes to the data objects on the primary platform since a previous synchronization*" as creating by software a set of self-describing synchronization transactions (col. 12, line 10) that identify changes, i.e. what has been added, deleted, and/or modified (col. 17, line 46), to the data on the first system when compared to the data it knows the and system contains (col. 6, line 8). Multer teaches "the generic message not being dependent on a specific platform" as the vendor-specific application data is converted to a generic or universal format before changes are calculated and transactions are logged (col. 17, line 37). Universal format, by definition, is not dependent on a specific platform. Multer discloses "*converting, by a primary platform synchronization adapter, the generic messages to adapted messages corresponding to each of the auxiliary platforms*" as using software for the conversion of the extracted changes into "difference information A" which contains the changes and implementation instructions for the second platform (col. 5, line 60), and "the adapted messages being in adapted message formats used by the underlying synchronization software" as the difference information is able to transform the message for the second platform, thus it is in a format used by the underlying synchronization software. Multer

discloses "*sending the adapted messages from the primary platform to auxiliary platform synchronization adapters in the corresponding auxiliary platforms*" as the next step in the process, is to transmit the difference information to the second system (col. 6, line 29) which contains software (i.e. synchronization adapter). Multer discloses "*converting, by the corresponding auxiliary platform synchronization adapters, the adapted messages to generic messages on each of the auxiliary platforms*" as the step in which the difference information, having been received by the second system, is interpreted and its data is reconstructed on the second system by software (col. 6, line 13). Multer discloses "*executing, by an auxiliary synchronization framework on each corresponding auxiliary platform, add, modify and/or delete functions in the generic messages to synchronize the data*" as the step in which the second system uses the reconstructed data from the first system to update its own data (col. 6, line 3).

Multer does not explicitly disclose "accessing a database to obtain a user identifier, the user identifier being associated with the user and linking to two or more device identifiers, the device identifiers identifying the plurality of auxiliary platforms" however this is substantially taught by Creswell (with the exception of two or more device identifiers) as a system that accesses a database to determine the source of communication (user identifier) and then uses this information (identifier) to identify the device associated with the user (col. 1 ln. 35-45, Fig. 5, col. 3 ln. 45-50). Thus Creswell discloses a user identifier being associated with the user and linking a device.

Multer does not explicitly disclose "converting the generic messages ... based on the obtained user identifier and the linked device identifiers" however this is also taught

by Creswell as using the user identifier information obtained from the database to perform specialized processing of messages (col. 1 ln. 49-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Multer to use the specific user identifier taught by Creswell for the purpose of specialized processing. A user's or device's settings may be stored in a database and then automatically retrieved (as taught by Creswell), this would lead to quicker converting of messages for that specific user or device. Creswell suggests multiple advantages can be obtained using this automatic specialized processing. One of which is to provide greater versatility in communications processing (col. 7 ln. 65-67).

The combination of Multer and Creswell does not explicitly teach “the user identifier ... linking to two or more device identifiers” however this is taught by Multer (486) as a system that uses a user identifier to synchronize data for a user across *multiple* devices (col. 3 ln. 10-30, col. 33 ln. 54 – col. 34 ln. 20, Fig. 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Multer and Creswell with the teachings of Multer (486) for the purpose of synchronizing data across multiple devices. Multer (486) suggests that this provides advantages to applications that require data transfer (col. 2 ln. 56-67).

Regarding claim 21, as indicated by applicant (pg. 7 of response filed 3/18/09), it is a method that corresponds to the system of claim 20. Therefore it is rejected for the same reasons.

Regarding claim 24, it partially corresponds to claim 20 and those corresponding parts (primary platform, auxiliary platform, synchronization database) are rejected for similar reasons.

Multer further teaches “the synchronization module comprising: an application interface module to transfer data objects” application interface (col. 3 ln. 30-31); “a settings module to permit a user to select various settings and parameters for synchronization” as a user interfere (col. 12 ln. 58) which allows a user to select settings, and a synchronization profile (col. 13 ln. 32-36); “a selection module to select appropriate data objects to pass ... during synchronization” change log identifies data (i.e. difference information) which needs to be synchronized (col. 3 ln. 41-48); “a synchronization store module to create a copy of data objects received from the principal computing platform” as an application object store which holds a copy of data (col. 11 ln. 58-60); “a synchronization engine module to retrieve content of the synchronizations store” data extraction (col. 11 ln. 60); “query builder module interfacing with the synchronization engine module to build generic messages to pass to synchronization adapter” engine can generate queries (col. 13 ln. 63-65); and

"an inbound queue module to retrieve inbound messages from the auxiliary computing platform" storage server receives data (col. 6 ln. 50-59).

Regarding claim 25, Multer discloses "synchronization store module groups, for each of a plurality of transactions, related data objects" transactions are grouped (col. 41 ln. 20-32).

9. Claims 22-23 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Multer, Creswell and Multer (486) as applied to claim 21 above, and further in view of Dawson et al. US 6,230,198 B1.

Regarding claim 22, Multer (486) discloses "wherein all data objects supporting a particular transaction are grouped together in the synchronization store database" transactions are grouped (col. 41 ln. 20-32).

The combination of Multer, Creswell and Multer (486) does not explicitly disclose "determining that an error is generated with respect to one or more data objects in a group associated with the transaction; and canceling all data objects synchronizations relating to the transaction" however this is taught by Dawson as canceling a transaction when the server runs out of space (error), this is also known as a roll back (col. 4 ln. 60-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination to include error detection and rollback as taught by Dawson for the purpose of stability. A roll back is well known in the art as evidenced by

Dawson and Multer (col. 35 ln. 39-40). Thus this is merely the combination of known elements according to their established function in order to yield a predictable result.

Regarding claim 23, Multer (486) discloses "wherein all data objects supporting a particular transaction are grouped together in the synchronization store database" transactions are grouped (col. 41 ln. 20-32);

The combination of Multer, Creswell and Multer (486) does not explicitly disclose "determining that an error is generated with respect to one or more data objects in a group associated with the transaction; and rolling back all data objects synchronizations relating to the transaction" however this is taught by Dawson as rolling back a transaction when the server runs out of space (error), this is also known as canceling (col. 4 ln. 60-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination to include error detection and rollback as taught by Dawson for the purpose of stability. A roll back is well known in the art as evidenced by Dawson and Multer (col. 35 ln. 39-40). Thus this is merely the combination of known elements according to their established function in order to yield a predictable result.

Regarding claim 26, it corresponds to claim 22 and thus is rejected for similar reasons. Dawson also teaches "the data objects that are not associated with the transaction are not canceled" by disclosing rolling back (i.e. canceling) only **the transaction** (emphasis added, col. 4 ln. 63-64), and not the entire group.

Regarding claim 27, it corresponds to claim 23 and thus is rejected for similar reasons. Dawson also teaches "the data objects that are not associated with the transaction are not rolled back" by disclosing rolling back only **the transaction** (emphasis added, col. 4 ln. 63-64), and not the entire group.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Multer et al. US 6,694,336 B1.

Regarding claim 28, Multer discloses “retrieving data objects to be synchronized from a primary computing platform application” retrieve data from data source (col. 3 ln. 51-54);

“storing the fetched data objects” data store (col. 3 ln. 60);

“comparing the stored fetched data objects to generate a delta set of changes” difference information is equivalent to a delta set of changes (col. 3 ln. 54-57, also see

Art Unit: 2442

col. 3 ln. 34-38 - "delta engine"), "determining whether the fetched data objects are associated with a previously selected delta generation process" difference information delta is stored for purposes of roll back (col. 6 ln. 44-49);

"using the previously selected delta generation process to compare the fetched data objects to a replica data set if it has been determined that the fetched data objects are associated with the previously selected delta generation process" server collects difference information delta and uses that delta which is attributed (i.e. previously selected) to the receiver (col. 7 ln. 5-29); or

"using a default delta generation process to compare the fetched data objects to the replica data if it has not been determined that the fetched data objects are associated with the previously selected delta generation process" by default, delta is simply the change in data (col. 5 ln. 56-64), thus if no previous version exists (as in the step above) the system simply generates the differences as delta;

"building generic messages to implement the generated delta set of changes" convert difference data to universal format (col. 12 ln. 9-20); and

"changing the generic messages to adapted messages, the adapted messages being in a form compatible with underlying synchronization software" system can apply difference information to synchronize data at application destination having a format (col. 3 ln. 26-32); and

"sending the adapted messages to an auxiliary computing platform" update data at device (Fig. 15).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hennen et al. US 7,286,567 B1 discloses a method for synchronizing data using messages of an independent format (abstract).

Uenoyama et al. US 2004/0064517 A1 discloses a message synchronization method (abstract) that includes converting message into a synchronization format (paragraph 12).

Libman US 2007/0271395 A1 discloses a synchronization module on a computing platform for transferring and converting data (abstract).

Huang et al. US 2007/0226272 A1 discloses a method for synchronization using a delta (paragraph 124).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON RECEK whose telephone number is (571)270-1975. The examiner can normally be reached on Mon - Fri 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Recek/
Examiner, Art Unit 2442

/KEVIN BATES/
Primary Examiner, Art Unit 2456